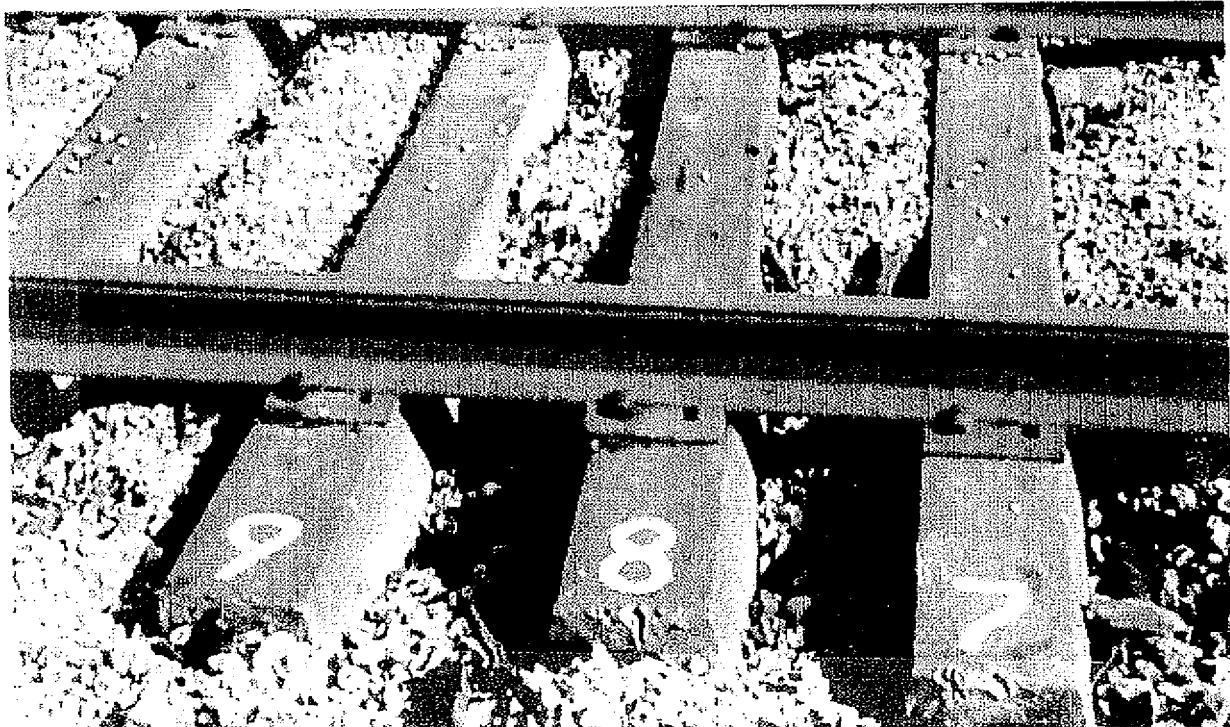


New Orleans  
Public Belt Railroad  
New Orleans, Louisiana

**"River Front Line"**

*Six Months Evaluation Report  
on  
Prototype Cross Tie Installation*



Prepared for

*"Mr. Anthony Marinello"*  
Manger, Engineering & Maintenance

*"Mr. Manuel Sims"*  
Track Supervisor

**PolySum Technologies, LLC**

P.O. Box 1842  
Covington, Louisiana 70434  
504-651-5301 & 504-651-5303 fax  
e-mail: [crossstie@usa.net](mailto:crossstie@usa.net)

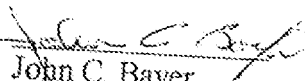
**DELIVERY TICKET**

April 5, 2001

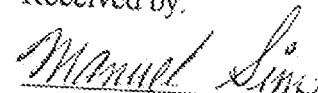
Delivered a total of twenty-five (25) 8" x 12" x 8'6" (high-load) prototype  
"Thermoplastic Railroad Ties" to be installed in the New Orleans Public Belt Railroad  
Line, as TEST TIES ONLY.

As agreed upon, PolySum will be able to take pictures & video of the installation and  
PolySum will monitor the ties once a month for a six-month test period.

Delivered by:

  
John C. Bayer  
Manager

Received by:

  
Mr. Manual Sims  
Track Supervisor

# INSTALLATION PROCEDURES & RECOMMENDATIONS

## For the Installation of 5/8" x 5/8" x 6" Cut Spikes

PolySum Technologies recommends applying and utilizing the same safety guide lines as you would use for the safe installation of wood ties. There are no special tools required for installation.

ONLY the proper tools should be used along with personal protective items such as, a hard hat, safety glasses, gloves, steel toe foot wear and proper fitting clothing should be worn during installation.

**PRE-DRILL** a 3/8" pilot hole before driving the cut spikes or installing screw spikes. The pilot hole size is determined by the size and or the design of the spike being used. **PRE-DRIVE** the spike a little before using the manual hammer to prevent the spike from jumping out of the hole when hit with the manual hammer.

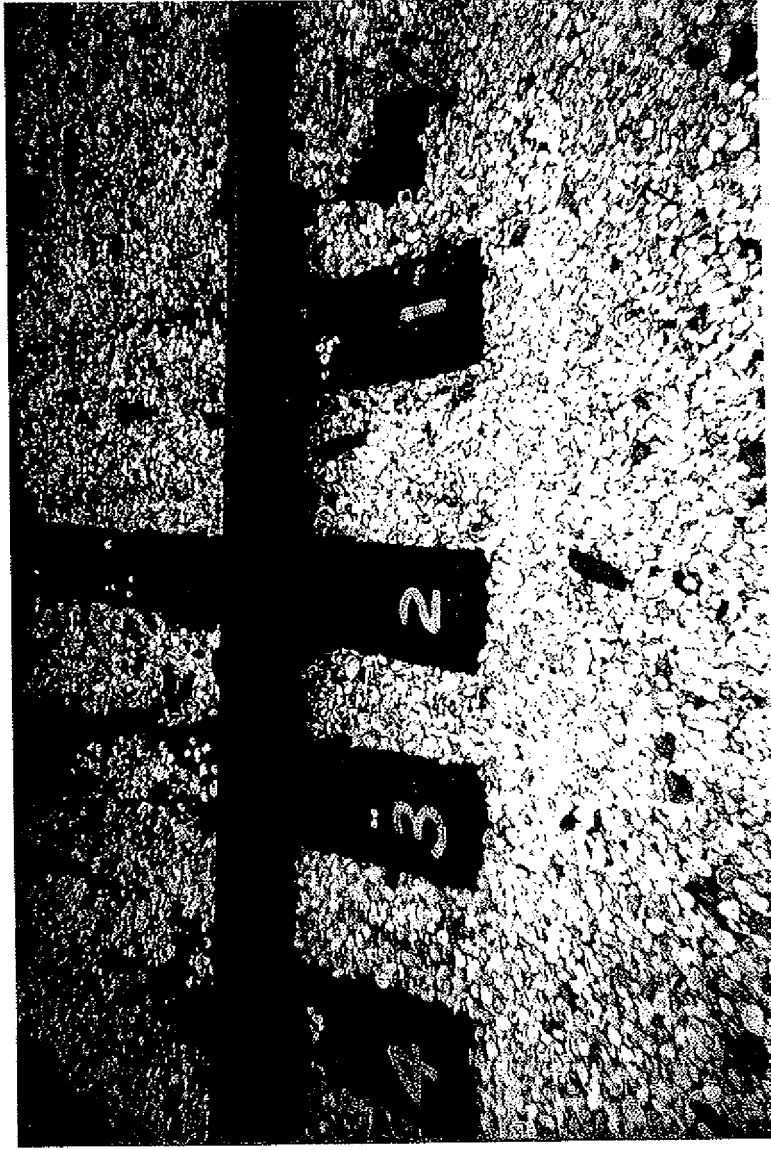
Use an air jackhammer or drive spike by using a manual spike hammer. If using a manual hammer the proper eye protection must be worn and there should be a clear distance around the person using the manual hammer.

PolySum's "Tuff-Ties" are heavier than a wood tie so get help and use caution when moving or lifting.

Apply the above and any and all other safety practices or procedures when installing thermoplastic composite ties as you would with wood ties.

  
Received & Understood

**PolySum/N.O.P.B.R.R.**  
Cross Tie Installation Sheet



Cluster #1

Date	Location	City & State	Cluster #	Tie in Cluster	Tie I.D.#	Gauge	Temp.	Plate Move	Tie Move.	Spike Hold	# Spikes
4-9-01	State St.	New Orleans, L.A.	1	4	1	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	1	4	2	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	1	4	3	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	1	4	4	56 3/4"	70 F	No	No	Good	4

**PolySum/N.O.P.B.R.R.**  
Cross Tie Installation Sheet

**Cluster #2**



Date	Location	City & State	Cluster #	Tie in Cluster	Tie I.D.#	Gauge	Temp.	Plate Move.	Tie Move.	Spike Hold	# Spikes
4-9-01	State St.	New Orleans, L.A.	2	7	5	56 1/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	6	56 1/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	7	56 1/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	8	56 3/16"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	9	56 3/16"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	10	56 1/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, L.A.	2	7	11	56 1/4"	70 F	No	No	Good	4

"Prototype Thermoplastic Railroad "TUFF-Ties"

**PolySum/N.O.P.B.R.R.**  
Cross Tie Installation Sheet



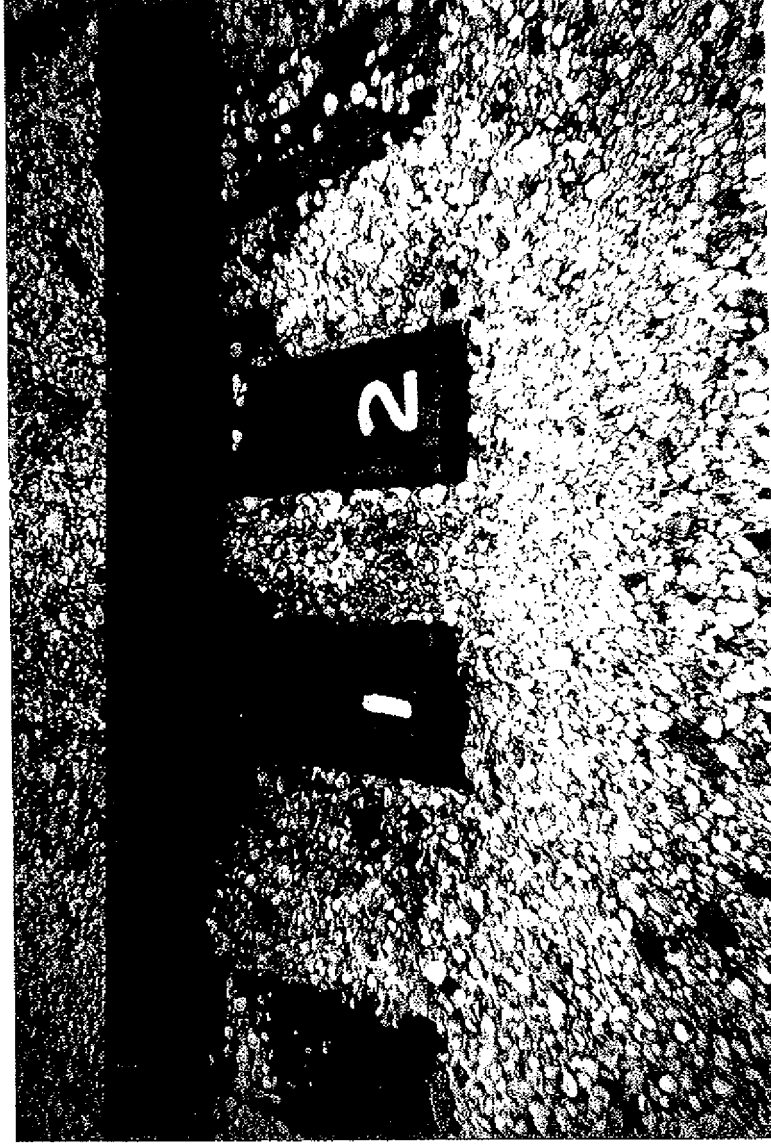
Cluster #3

Date	Location	City & State	Cluster #	Tie in Cluster	Tie L.D.#	Gauge	Temp.	Plate Move.	Tie Move.	Spike Hold	# Spikes
4-9-01	State St.	New Orleans, LA.	3	8	12	56 1/2"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	13	56 1/2"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	14	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	15	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	16	56 1/2"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	17	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	18	56 3/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	3	8	19	56 1/4"	70 F	No	No	Good	4

"Prototype Thermoplastic Railroad "TUFF-Ties"

**PolySum/N.O.P.B.R.R.**  
Cross Tie Installation Sheet

Cluster #4



Date	Location	City & State	Cluster #	Tie in Cluster	Tie I.D.#	Gauge	Temp.	Plate Move.	Tie Move.	Spike Hold	# Spikes
4-9-01	State St.	New Orleans, LA.	4	2	20	56 3/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	4	2	21	56 3/4"	70 F	No	No	Good	4

"Prototype Thermoplastic Railroad "TUFF-Ties"

PolySum/N.O.P.B.R.R.  
Cross Tie Installation Sheet

Cluster # 5



Date	Location	City & State	Cluster #	Tie in Cluster	Tie I.D.#	Gauge	Temp.	Plate Move.	Tie Move.	Spike Hold	# Spikes
4-9-01	State St.	New Orleans, LA.	5	4	22	56 3/4"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	5	4	23	56 7/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	5	4	24	56 7/8"	70 F	No	No	Good	4
4-9-01	State St.	New Orleans, LA.	5	4	25	56 7/8"	70 F	No	No	Good	4

"Prototype Thermoplastic Railroad "TUFF-Ties"



PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
9-Apr-01	1	70 F	56 3/8"	No	No	Good	4
9-Apr-01	2	70 F	56 3/8"	No	No	Good	4
9-Apr-01	3	70 F	56 3/8"	No	No	Good	4
9-Apr-01	4	70 F	56 3/4"	No	No	Good	4

Inspected by: *NOBB*  
Union Pacific  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

**PolySum Technologies**  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

**Cluster # 2**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
9-Apr-01	5	70 F	56 1/4"	No	No	Good	4
9-Apr-01	6	70 F	56 1/4"	No	No	Good	4
9-Apr-01	7	70 F	56 1/4"	No	No	Good	4
9-Apr-01	8	70 F	56 3/16"	No	No	Good	4
9-Apr-01	9	70 F	56 3/16"	No	No	Good	4
9-Apr-01	10	70 F	56 1/4"	No	No	Good	4
9-Apr-01	11	70 F	56 1/4"	No	No	Good	4

Inspected by:

*NCPB*  
Union Pacific  
PolySum:

John C. Bayer

*Thermoplastic Railroad Ties*

PolySum Technologies  
Tie Evaluation Summary

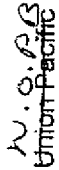
Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 3

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
9-Apr-01	12	70 F	56 1/2"	No	No	Good	4
9-Apr-01	13	70 F	56 1/2"	No	No	Good	4
9-Apr-01	14	70 F	56 3/8"	No	No	Good	4
9-Apr-01	15	70 F	56 3/8"	No	No	Good	4
9-Apr-01	16	70 F	56 1/4"	No	No	Good	4
9-Apr-01	17	70 F	56 3/8"	No	No	Good	4
9-Apr-01	18	70 F	56 3/8"	No	No	Good	4
9-Apr-01	19	70 F	56 1/4"	No	No	Good	4

Inspected by:

 Union Pacific

PolySum:

John C. Bayer

**PolySum Technologies**  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

**Cluster # 4**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
9-Apr-01	20	70 F	56 7/8"	No	No	Good	4
9-Apr-01	21	70 F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

*Thermoplastic Railroad Ties*

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
9-Apr-01	22	70 F	56 7/8"	No	No	Good	4
9-Apr-01	23	70 F	56 7/8"	No	No	Good	4
9-Apr-01	24	70 F	56 7/8"	No	No	Good	4
9-Apr-01	25	70 F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
25-May-01	1	76 F	56 3/8"	No	No	Good	4
25-May-01	2	76 F	56 3/8"	No	No	Good	4
25-May-01	3	76 F	56 3/8"	No	No	Good	4
25-May-01	4	76 F	56 3/4"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

**PolySum Technologies**  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

**Cluster # 2**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
25-May-01	5	76 F	56 1/4"	No	No	Good	4
25-May-01	6	76 F	56 1/4"	No	No	Good	4
25-May-01	7	76 F	56 1/4"	No	No	Good	4
25-May-01	8	76 F	56 3/16"	No	No	Good	4
25-May-01	9	76 F	56 3/16"	No	No	Good	4
25-May-01	10	76 F	56 1/4"	No	No	Good	4
25-May-01	11	76 F	56 1/4"	No	No	Good	4

Inspected by:

N.O.P.B.R.R.

PolySum:

John C. Bayer

*Thermoplastic Railroad Ties*

**PolySum Technologies**  
Tie Evaluation Summary


Inspection Work Sheet:

Location: State Street, New Orleans, LA.

**Cluster # 3**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
25-May-01	12	76 F	56 1/2"	No	No	Good	4
25-May-01	13	76 F	56 1/2"	No	No	Good	4
25-May-01	14	76 F	56 3/8"	No	No	Good	4
25-May-01	15	76 F	56 3/8"	No	No	Good	4
25-May-01	16	76 F	56 1/4"	No	No	Good	4
25-May-01	17	76 F	56 3/8"	No	No	Good	4
25-May-01	18	76 F	56 3/8"	No	No	Good	4
25-May-01	19	76 F	56 1/4"	No	No	Good	4

Inspected by:

  
Union Pacific

PolySum:

John C. Bayer

*Thermoplastic Railroad Ties*



Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 4

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
25-May-01	20	76 F	56 7/8"	No	No	Good	4
25-May-01	21	76 F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
25-May-01	22	76 F	56 7/8"	No	No	Good	4
25-May-01	23	76 F	56 7/8"	No	No	Good	4
25-May-01	24	76 F	56 7/8"	No	No	Good	4
25-May-01	25	76 F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jun-01	1	82 F	56 3/8"	No	No	Good	4
27-Jun-01	2	82 F	56 3/8"	No	No	Good	4
27-Jun-01	3	82 F	56 3/8"	No	No	Good	4
27-Jun-01	4	82 F	56 3/4"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 3

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jun-01	12	87 F	56 1/2"	No	No	Good	4
27-Jun-01	13	87 F	56 1/2"	No	No	Good	4
27-Jun-01	14	87 F	56 1/2"	No	No	Good	4
27-Jun-01	15	87 F	56 3/8"	No	No	Good	4
27-Jun-01	16	87 F	56 3/8"	No	No	Good	4
27-Jun-01	17	87 F	56 3/8"	No	No	Good	4
27-Jun-01	18	87 F	56 3/8"	No	No	Good	4
27-Jun-01	19	87 F	56 3/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR

PolySum:

John C. Bayer

Thermoplastic Railroad Ties

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jun-01	22	87 F	56 7/8"	No	No	Good	4
27-Jun-01	23	87 F	56 7/8"	No	No	Good	4
27-Jun-01	24	87 F	56 7/8"	No	No	Good	4
27-Jun-01	25	87 F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jul-01	1	90° F	56 3/8"	No	No	Good	4
27-Jul-01	2	90° F	56 3/8"	No	No	Good	4
27-Jul-01	3	90° F	56 3/8"	No	No	Good	4
27-Jul-01	4	90° F	56 3/4"	No	No	Good	4

Inspected by:

N.O.P.B.R.R  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Section Work Sheet:

ite Street, New Orleans, LA.

Cluster # 2

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jul-01	5	90°F	56 1/4"	No	No	Good	4
27-Jul-01	6	90°F	56 1/4"	No	No	Good	4
27-Jul-01	7	90°F	56 1/4"	No	No	Good	4
27-Jul-01	8	90°F	56 3/16"	No	No	Good	4
27-Jul-01	9	90°F	56 3/16"	No	No	Good	4
27-Jul-01	10	90°F	56 1/4"	No	No	Good	4
27-Jul-01	11	90°F	56 1/4"	No	No	Good	4

Inspected by:

N.O.P.B.R.R.

PolySum:

John C. Bayer

Thermoplastic Railroad Ties

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 3

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jul-01	12	90° F	56 1/2"	No	No	Good	4
27-Jul-01	13	90° F	56 1/2"	No	No	Good	4
27-Jul-01	14	90° F	56 3/8"	No	No	Good	4
27-Jul-01	15	90° F	56 3/8"	No	No	Good	4
27-Jul-01	16	90° F	56 1/4"	No	No	Good	4
27-Jul-01	17	90° F	56 3/8"	No	No	Good	4
27-Jul-01	18	90° F	56 3/8"	No	No	Good	4
27-Jul-01	19	90° F	56 1/4"	No	No	Good	4

Inspected by:

Union Pacific  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties



PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 4

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jul-01	20	90 <sup>0</sup> F	56 7/8"	No	No	Good	4
27-Jul-01	21	90 <sup>0</sup> F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B. RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
27-Jul-01	22	90° F	56 7/8"	No	No	Good	4
27-Jul-01	23	90° F	56 7/8"	No	No	Good	4
27-Jul-01	24	90° F	56 7/8"	No	No	Good	4
27-Jul-01	25	90° F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
31-Aug-01	1	93° F	56 3/8"	No	No	Good	4
31-Aug-01	2	93° F	56 3/8"	No	No	Good	4
31-Aug-01	3	93° F	56 3/8"	No	No	Good	4
31-Aug-01	4	93° F	56 3/4"	No	No	Good	4

Inspected by:

N.O.P.B.RR

PolySum:

John C. Bayer

Thermoplastic Railroad Ties

Section Work Sheet:

ite Street, New Orleans, LA.

Cluster # 2

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
31-Aug-01	5	93°F	56 1/4"	No	No	Good	4
31-Aug-01	6	93°F	56 1/4"	No	No	Good	4
31-Aug-01	7	93°F	56 1/4"	No	No	Good	4
31-Aug-01	8	93°F	56 3/16"	No	No	Good	4
31-Aug-01	9	93°F	56 3/16"	No	No	Good	4
31-Aug-01	10	93°F	56 1/4"	No	No	Good	4
31-Aug-01	11	93°F	56 1/4"	No	No	Good	4

Inspected by:

N.O.P.B.R.R.  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 3

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
31-Aug-01	12	93° F	56 1/2"	No	No	Good	4
31-Aug-01	13	93° F	56 1/2"	No	No	Good	4
31-Aug-01	14	93° F	56 3/8"	No	No	Good	4
31-Aug-01	15	93° F	56 3/8"	No	No	Good	4
31-Aug-01	16	93° F	56 1/4"	No	No	Good	4
31-Aug-01	17	93° F	56 3/8"	No	No	Good	4
31-Aug-01	18	93° F	56 3/8"	No	No	Good	4
31-Aug-01	19	93° F	56 1/4"	No	No	Good	4

Inspected by: *N. C. Bayer*  
~~Union Pacific~~  
PolySum: John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 4

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
31-Aug-01	20	93 <sup>0</sup> F	56 7/8"	No	No	Good	4
31-Aug-01	21	93 <sup>0</sup> F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
31-Aug-01	22	93° F	56 7/8"	No	No	Good	4
31-Aug-01	23	93° F	56 7/8"	No	No	Good	4
31-Aug-01	24	93° F	56 7/8"	No	No	Good	2
31-Aug-01	25	93° F	56 7/8"	No	No	Good	2

Inspected by:

N.O.P.B.R.R.  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 1

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
28-Sep-01	1	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep-01	2	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep-01	3	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep-01	4	87 <sup>0</sup> F	56 3/4"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties



**PolySum Technologies**  
Tie Evaluation Summary

Section Work Sheet:

ite Street, New Orleans, LA.

**Cluster # 2**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
28-Sep -01	5	87°F	56 1/4"	No	No	Good	4
28-Sep -01	6	87°F	56 1/4"	No	No	Good	4
28-Sep -01	7	87°F	56 1/4"	No	No	Good	4
28-Sep -01	8	87°F	56 3/16"	No	No	Good	4
28-Sep -01	9	87°F	56 3/16"	No	No	Good	4
28-Sep -01	10	87°F	56 1/4"	No	No	Good	4
28-Sep -01	11	87°F	56 1/4"	No	No	Good	4

Inspected by:

N.O.P.B.RR.

PolySum:

John C. Bayer

*Thermoplastic Railroad Ties*

**PolySum Technologies**  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

**Cluster # 3**

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
28-Sep.-01	12	87 <sup>0</sup> F	56 1/2"	No	No	Good	4
28-Sep.-01	13	87 <sup>0</sup> F	56 1/2"	No	No	Good	4
28-Sep.-01	14	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep.-01	15	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep.-01	16	87 <sup>0</sup> F	56 1/4"	No	No	Good	4
28-Sep.-01	17	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep.-01	18	87 <sup>0</sup> F	56 3/8"	No	No	Good	4
28-Sep.-01	19	87 <sup>0</sup> F	56 1/4"	No	No	Good	4

Inspected by:

Union Pacific  
PolySum: John C. Bayer

*Thermoplastic Railroad Ties*

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 4

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
28-Sep-01	20	87 <sup>o</sup> F	56 7/8"	No	No	Good	4
28-Sep-01	21	87 <sup>o</sup> F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

PolySum Technologies  
Tie Evaluation Summary

Inspection Work Sheet:

Location: State Street, New Orleans, LA.

Cluster # 5

Date	Tie #	Temperature	Gauge	Plate Move.	Tie Move.	Spike Hold	# of Spikes
28-Sep-01	22	87 <sup>0</sup> F	56 7/8"	No	No	Good	4
28-Sep-01	23	87 <sup>0</sup> F	56 7/8"	No	No	Good	4
28-Sep-01	24	87 <sup>0</sup> F	56 7/8"	No	No	Good	4
28-Sep-01	25	87 <sup>0</sup> F	56 7/8"	No	No	Good	4

Inspected by:

N.O.P.B.RR  
PolySum:

John C. Bayer

Thermoplastic Railroad Ties

# NOPB Railroad



PolySum High-Load Ties  
9-10-01